

CLAIMS

We claim:

1. A lifting assembly for raising and supporting a load, the lifting assembly comprising:

5 a removable and reusable lifting bracket;
a support bracket for attachment to the load; and
a jacking apparatus having one end attached to the lifting bracket and another end attached to a piercing pole above the lifting bracket.

10 2. The lifting assembly of claim 1 wherein the lifting bracket fits around the support bracket.

3. The lifting assembly of claim 1 wherein the lifting bracket is removable from the support bracket.

4. The lifting assembly of claim 1 wherein the lifting bracket is removably attached to the support bracket and jacking apparatus.

15 5. The lifting assembly of claim 1 wherein the lifting bracket includes a pair of spaced-apart L-shaped lifting members; a pair of semi-circular convex members attached to the rear of the spaced-apart L-shaped lifting members; a pair of horizontal bracing members attached to the rear of the spaced-apart L-shaped lifting members and between the semi-circular convex members; and a pair of vertical bracing members extending between the pair of horizontal
20 bracing members.

6. The lifting assembly of claim 5 wherein an opening is formed between the spaced-apart L-shaped lifting members, the convex members and the horizontal bracing members and is designed to fit around a tubular member of the support bracket.

7. The lifting assembly of claim 1 wherein the support bracket includes a tubular member for receiving a piercing pole therein; an L-shaped member attached to the tubular member for supporting a load thereon; and a substantially horizontal top member attached to the top of the tubular member and having an opening extending therethrough for receiving the top of the tubular member therein.

8. The lifting assembly of claim 1 wherein the piercing pole extends through the support bracket and lifting bracket.

9. The lifting assembly of claim 1 wherein the support bracket is installed on the piercing pole for engaging the edge of the load.

10. The lifting assembly of claim 1 wherein the lifting bracket is removably attached to a jacking apparatus for pushing or pulling the piercing pole through the support bracket and into the ground.

11. The lifting assembly of claim 1 wherein one end of the jacking apparatus is attached to the lifting bracket and the other end of the jacking apparatus is attached to an upper end of the piercing pole.

12. The lifting assembly of claim 1 wherein the jacking apparatus includes a support brace located above the lifting bracket.

13. The lifting assembly of claim 12 wherein the support brace includes a circular sleeve that encircles the piercing pole, two support wings extending in opposite directions from the circular sleeve, and a pair of hydraulic rams oriented on either side of and running parallel to the piercing pole.

5 14. The lifting assembly of claim 13 wherein the hydraulic rams connect to respective wings of the lifting bracket and support wings of the support brace.

15. The lifting assembly of claim 12 wherein the hydraulic rams are removed from the lifting bracket, the lifting bracket is removed from the support bracket and the support bracket remains attached to the load and the piercing pole.

10 16. A lifting assembly for raising and supporting a load, the lifting assembly comprising:

a pier driving pole;

a support bracket including a tubular member for receiving a pier driving pole therein;

a removable and reusable lifting bracket that removably fits around the support bracket;

15 a ram support brace located above the lifting bracket and including a circular sleeve for receiving the pier driving pole therein, the ram support brace having two support wings extending in opposite directions from the circular sleeve; and

a pair of hydraulic rams oriented on either side of and running parallel to the pier driving pole, wherein the hydraulic rams connect the respective sides of the lifting bracket and the
20 support wings of the ram support brace.

17. A removable and reusable lifting bracket for use on a foundation piercing system comprising: a pair of spaced-apart L-shaped lifting members; a pair of semi-circular convex

members attached to the rear of the spaced-apart L-shaped lifting members; a pair of horizontal bracing members attached to the rear of the spaced-apart L-shaped lifting members and between the semi-circular convex members; and a pair of vertical bracing members extending between the pair of horizontal bracing members; wherein an opening is formed between the spaced-apart L-shaped lifting members, the convex members and the horizontal bracing members and is designed to fit around the tubular member of a support bracket of a lifting assembly.

18. A method for raising and supporting a load, the method comprising the steps of:
attaching a lifting assembly to a load to be raised and supported;
attaching a support bracket of the lifting assembly to the load;
10 attaching a removable and reusable lifting bracket around the support bracket;
attaching a jacking apparatus to the lifting bracket and a pier driving pole;
lifting the load attached to the support bracket with the jacking apparatus attached to the lifting bracket supporting the support bracket;
removing the jacking apparatus from the lifting bracket and pier driving pole;
15 removing the lifting bracket from around the support bracket;
anchoring the pier driving pole to the support bracket for supporting the load thereon, and reusing the lifting bracket on other lifting assemblies or piercing systems.